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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LELE, TANMAY S

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/407,149

Applicant(s)

HENDERSON, P. MICHAEL

Examiner

Tanmay S Lele

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 15 July 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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*Response to Arguments*

1. Applicant's arguments filed 09 July, 2002, have been fully considered but they are not persuasive.
2. Regarding claims 1, 11, and 17: In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., usage of common, readily available AM/FM receivers, cost, network overhead increase) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In this case, the Applicant attempts to overcome the Boys reference by stating that "broadcasting the analog information at low power in a localized area in at least one pre-selected radio frequency; and receiving the broadcast information in the localized are on a radio frequency receiver tuned to at least one frequency to permit listening to audio communication," suggests that the radio frequency is accessible by anyone with a radio tuner (assumed to be a commonly available AM/FM tuner). This is not stated in the claim. The Boys reference further meets the above requirements, in that analog systems can be used in cellular communications (as is commonly known in the art), transmissions are local, the receiver locks (or tunes) to one specific frequency for reception, and audio is communicated.

Applicant also attempts to overcome the Boys reference by stating, "the claimed subject matter lowers system overhead and allows for free reception of the broadcast, " reasoning that this is the fundamental difference between the reference and the claimed. Once more, the claim does not specifically state either of the above. Further, Boys does in fact teach that system

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overhead is not an issue, as customer access points (CAP's) are strategically distributed about a region in some instances, (further detailed in column 5, lines 8-26). Further note that Boys addresses the issue of cost (column 5, lines 40 – 52).

3. Regarding claims 1, 11, and 17. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this case, Applicant attempts to overcome the combination of Boys with common knowledge in the art by suggesting it is not obvious, "to use radio broadcasting to disseminate information from the Internet." However the reference, in conjunction with knowledge of the art, do in fact teach the above and the combination is obvious, as radio broadcasting does not specifically pertain to the frequencies generally associated with AM/FM radio, but more over suggests any radio or microwave frequency. Thus Boys, in view of knowledge of the art, do in fact teach the concept of disseminating Internet radio signals broadcast on RF or microwave frequencies. Hence, the Examiner is not persuaded by the Applicant's argument that the references have not been properly combined.

4. Applicant's arguments filed 09 July, 2002 have been fully considered but they are not persuasive.

Regarding claims 2-7, 9,10, 12-16, 18 and 19. Applicant states, " Because independent

claim [1,11, or 17] is believed to be allowable over the prior art of record, dependent claim(s) are allowable as a matter of law, for at least the reason that dependent claim(s) contains all the features/elements/steps of independent claim [1,11, or 17]. "As stated above and in the Office Action, it is believed the independent claims 1,11, and 17 are still rejectable, for the already aforementioned reasons. Applicant further states that "...dependent claim(s) further recites features and/or combinations of features, as are apparent by examination of the claim itself, that are patentably distinct from the prior art of record. Hence, there are other reasons why dependent claim(s) are allowable." As Applicant makes no further detailed argument, it is believed that the Office Action stands and refutes the claims, even as amended.

5. Regarding claim 3. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this case, Applicant attempts to overcome the combination of Boys with Lowe by suggesting, "it (the FM receiver) is not incorporated into the transmission system of the information taken from the Internet." Lowe suggests that information (advertisements) can be downloaded into a storage medium from a T1, T3, ISDN or telephone connection and stored on CD, floppy disk, hard drive (column 10, lines 47 – 60) to be later disseminated via his distribution network (note that Applicant's claim 18 does the same). Lowe further states that

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downconverting a high frequency RF signal (900 MHz in this case) down to an IF frequency in the FM band to be demodulated by conventional FM receivers is already taught (see column 6, lines 63 – 67). When viewed with Boys (whose invention uses cellular frequencies, known to be around 800 MHz with Internet radio) the present invention becomes apparent (note the arts are related in that both make reference to utilizing the Internet to spread audio data). Hence, the Examiner is not persuaded by the Applicant's argument that the references have not been properly combined.

### DETAILED ACTION

#### *Drawings*

1. The drawings filed on 09/28/1999 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draft Person's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 21, neither in the claim nor the specification is it explained how or why

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an frequency modulated signal is further amplitude modulated, as no conventional receivers perform this function (note specialized receivers do perform PM and AM demodulation, and though PM is a variation of FM no known conventional or off the shelve receivers perform FM then AM demodualtion) and hence is not enabling to one skilled in the art. For the purposes of examining, it was assumed that applicant was describing the process of amplitude modulating the radio carrier instead of frequency modulating the radio carrier. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 9, 10, 11, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boys (Boys, US Patent No. 6,314,094).

Regarding claims 1, 11, and 17, Boys teaches of a method for receiving digital information comprising of receiving an audio communication as digital information from a remote source via the Internet and converting the digital information to analog information (column 2, lines 48-55). Boys teaches of transmitting the information in a localized area (as no reference was given by localized, a cellular site was seen to local) and of broadcasting the analog information at low power in a localized area in at least one pre-selected radio frequency, or of receiving the broadcast information in the localized area on a radio frequency receiver tuned to at least one frequency to permit listening to the audio communication (described as a wireless

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cellular system, column 4, lines 15 – 25 and detailed in Figure 1). Boys further details the system as being an ACMS (Advanced Cellular Mobile Service) using CDDP (Cellular Digital Data Packet and thus broadcast on a specific frequency) and further teaches that other wireless delivery systems could be used (hence, analog or digital, column 4 lines 54 – 64). It would have been obvious to one of ordinary skill in the art, at the time of invention that Boy's system along with common knowledge of cellular systems, describes the claimed. Boy's reference alludes to the use of ACMS, which is known to be analog (note that most cellular phone today have both an analog and digital receiver, as most of the infrastructure is analog) and once again since ACMS is used, this could be seen as localized, as in a cell site. Boys further states that other wireless delivery systems could be used as well. The motivation of these allusions are common knowledge of cellular systems used in the field.

Regarding claim 4. Boys discloses the claimed invention, except for the fact that broadcasting of the analog information comprises broadcasting at a power level less than about 100 milliwatts. It would have been obvious to use a very low power, since the applicant has not disclosed that a power level less than about 100 milliwatts solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a much lower power to obtain local transmission.

Regarding claims 9 and 10. Boys teaches all the limitations as claimed in claim 1. Boys further teaches that the receiving of digital information comprises receiving music as digital information and the receiving of digital information comprises receiving radio program content as digital information (column 4, lines 41 – 62).



Regarding claim 13, Boys teaches of the claimed limitations as recited in claim 1 above. Boys further shows in Figure 2, means for displaying user readable information and describes function (column 6, lines 1 – 19).

6. Claims 2, 3, 5-7, 12, 16, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boys (Boys, US Patent No. 6,314,094) in view of Lowe et al. (Lowe et al. US Patent No 6,298,218).

Regarding claim 2, Boys teach all the limitations as claimed in claim 1. In addition, Boys teaches of receiving digital information through satellite transmission (wireless transmission, column 2, lines 66-70). Boys does not teach of the step of receiving digital information through a means selected from the group consisting of digital subscriber line transmission, telephone line transmission, or cable transmission. Lowe et al. further teach of receiving digital information through wire-line transmission on a telephone line (column 10 lines 33 –39 and 52 – 56). Therefore, it would have been obvious to a person skilled in the art to include Lowe et al. in Boys, to provide Internet access from a server and it also would have been obvious to use an alternate wire-line method of accessing the Internet server (DSL or cable).

Regarding claim 3. Claim 3 contains all the limitations as recited in claim 1 above. Boys describes reception in a radio frequency modulated waveband in the ranges of from about 88 MHZ to about 108 MHZ (FM radio band) (column 16, lines 3 – 37). Boys does not explicitly state broadcasting. Lowe further teaches of a dual mode receiver (FM and RF) and of broadcasting at radio frequencies (starting column 7, line 54 and ending column 8, line 19). It would have been obvious to a person skilled in the art at the time of invention to replace one set of transmitted frequencies for another, as this has been common place in the industry when

frequency use in certain bands become over-used and thus crowded, or to utilize a common, mass produced receiver.

Regarding claim 5, Boys teaches all the limitations as recited in claim 1. Lowe et al further teach that broadcasting of the analog information is initiated at a predetermined time and in a predetermined frequency (starting column 3, line 61 and ending column 4, line 10).

Regarding claim 6, Boys teaches all the limitations in claim 1. Lowe et al further teach that the broadcasting comprises broadcasting information in multiple frequencies (column 7, lines 14- 24).

Regarding claim 7. Boys teaches all the limitations recited in claim 1. Lowe et al further teach the broadcasting comprises broadcasting in a first frequency and broadcasting information in a second frequency for (column 7, lines 14- 24) and include the concept of for a first time period and second period of time (and their possible overlap) by “ a plurality of transmission devices” (column 2, lines 7-16).

Regarding claim 12. Boys teaches all the limitations recited in claim 11. Boys does not teach of further comprising means for programming the means for broadcasting, the means for programming comprising a program for setting a time to activate the means for broadcasting. Lowe et al. describe a control link line that can recall data upon trigger (voice, keypad, ect; column 9, lines 6 – 19). It would have been obvious to a person skilled in the art, at the time of invention, that the control link line described by Lowe et al, could have been inserted into Boys to achieve setting a time to activate the means for broadcasting, as Lowe et al describe an interface that initiates playback when activated.

Regarding claims 16 and 18. Boys teaches all the limitations in claims 11 and 17. Boys teaches using cache memory for storing received digital information for broadcasting at a later time and of storing received digital information before converting the digital information to analog information (column 8, lines 24-30). The cache memory Boys discusses is not a large memory buffer for the purposes described. Lowe et al. teach of a large memory module which stores data to be recalled on demand, and further the data types stored (column 9, lines 6-19). It would have been obvious to a person skilled in the art, at the time of the invention, to expand upon Boys' temporary storage to include Lowe et al.'s concept of a large storage buffer, as memory expansion has been commonly practiced in both home industry to achieve increased data storage. Likewise, the issue of time is inherent in the concept of storage as well (saved to be recalled at a later time).

Regarding claim 21, Boys in view of Lowe teach all the claimed limitations as taught in claim 17. Lowe teaches of using an FM receiver to demodulate a signal using conventional FM receivers (column 6, lines 63 – 67). However, Boys in view of Lowe do not specifically teach of broadcasting the analog information on one pre-selected AM radio frequency. Using an AM modulated signal to be demodulated by a conventional AM receiver is a matter of system preference and is very well known in the art (as even inferred by Lowe, column 7, lines 3 – 6) and thus Examiner takes "Official Notice" of such as such. Therefore, it would have been obvious to one skilled in the art at the time of invention to combine Boys in view of Lowe, with using an AM modulated radio frequency in order for the signal to be demodulated by a readily available AM receiver.

7. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boys (Boys, US Patent No. 6,314,094) in view of Dao et al. (Dao et al. US Patent No 5,915,207).

Regarding claims 14 and 15. Boys discusses all the limitations as disclosed in claim 11. Boys teaches of converting the transmissions to analog information for broadcasting. Boys in does not discuss that the means for receiving and means for converting are contained on a PCI card, the card receiving transmissions from the Internet, nor do they teach that the means for receiving, means for converting, and means for broadcasting are contained on a PCI card. In the same field of endeavor, Dao et al. teach of a NIC (network interface card) that is available in both PCAT and PCMCIA Type II formats that performs the conversion of wireless Ethernet (Internet data) into Ethernet (Internet data), and furthermore transmits and receives this data all contained on a PCI card (column 5, lines 28-50; also note hard wired NIC's pre-date their wireless counterparts). It would have been obvious to a person skilled in the art, at the time of invention, to include within Boys, the PCI card as taught by Dao et al., as the PCI card receives Internet data on itself and furthermore demonstrated to have the ability to transmit, receive, and convert data.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9- 6:30, Monday- Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (703) 305-4778. The fax phone numbers for the


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organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

TSL  
Tanmay S Lele  
Examiner  
Art Unit 2681

tsl  
July 25, 2002



DWAYNE BOST  
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